

Talk for Short Course on "Flexible Electronics",
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“Printing Electronics– Techniques, Challenges, and Chances”

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Abstract

Flexible electronics is a fast developing research field aiming at light-weight, low-cost, and large area applications like organic light emitting diodes (OLED) and organic photo voltaic (OPV). The required well defined thin layers need to be deposited pattern-wise and with high layer uniformity. Coating/printing and especially as Roll-to-roll (R2R) processing at atmospheric conditions has the potential to meet the needs of layer homogeneity and cost efficient mass production. However, existing technologies of the printing and coating industry need to be stretched to fulfil the requirements of printed electronics.

This presentation will review the benefits, chances, and challenges of manufacturing electronics by printing. It will give an overview of the requirements electronics and how they relate to conventional printing and semiconductor processing. The most suitable printing techniques will be briefly introduce, as well as other components and process steps required.